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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/713,457	11/15/2000	Thomas Peter Emmons JR.	IRI03902	3369

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MOTOROLA, INC.
CORPORATE LAW DEPARTMENT - #56-238
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EXAMINER	
MOORE JR, MICHAEL J	

ART UNIT	PAPER NUMBER
2666	3

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/713,457	Applicant(s) EMMONS ET AL.	
	Examiner Michael J Moore, Jr.	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 November 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5,6,10,16 and 19* is/are rejected.

7)☒ Claim(s) *2-4,7-9,11-15,17,18,20 and 21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 November 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following informalities. In Figure 6, element 608 that is labeled "frequency modulator" should be labeled "frequency demodulator". Secondly, in Figure 7, step 704, which says "frequency modulate data" should say "frequency demodulate data". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims **1, 5, 6, 10, 16 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanno et al. (U.S. 6,208,624) in view of Seshadri et al. (U.S. 6,044,073).

Regarding claim **1**, Tanno et al. discloses a wireless communication method utilizing data streams of different bit rates in Figure 8. Figure 8 contains a first data stream with a first information bit rate (control info element D3) and a second data stream with a second information bit rate that is higher than the first information bit rate (user data element D4-N). This difference in bit rate is also shown further in Figure 5. Tanno et al. also discloses the step of encoding the first data stream using CDMA with spreader element 14c of Figure 8. Tanno et al. also discloses multiplexing the resulting spread data stream with the second data stream with multiplexer element 17 of Figure 8. Tanno et al. does not disclose frequency modulation of the multiplexed data stream and transmission of this modulated data stream at a first power level. However, Seshadri et al. discloses a multiplexer element 318 whose output is modulated in modulation element 324 and then transmitted by RF transmitter element 326 in Figure 3. At the time of the invention, it would have been obvious to someone of ordinary skill in the art given these references to add modulation as taught in Seshadri et al. to the multiplexed system of the Tanno et al. reference. A motivation for doing so would be to enable the multiplexed data stream to be transmitted over the air using an allowed frequency carrier.

Regarding claim **5**, Tanno et al. further discloses that one or more of the input data streams are paging data streams with paging info element D1 of Figure 8.

Regarding claim **6**, Tanno et al. does not disclose that one or more of the input data streams are voice data streams. However, Seshadri et al. discloses an input voice data interface 300 inside the CDMA transmitter of Figure 3 that takes voice data as an input. According to Figure 3, this voice data is multiplexed, spread, and modulated as well. At the time of the invention, it would have been obvious to someone of ordinary skill in the art given these references to choose voice data as taught in Seshadri et al. as an input to the multiplexed system of the Tanno et al. reference. A motivation for doing so would be to allow for voice data to be transmitted efficiently along with other user data and/or control data.

Regarding claim **10**, Tanno et al. discloses the receiving of a modulated data stream with the mobile station of Figure 9. Tanno et al. also discloses the frequency demodulation of the modulated data stream with demodulator element 23 of Figure 9. Tanno et al. also discloses the decoding of the spread data stream(s) with the CDMA despreader element 27 of Figure 9. Tanno et al. does not disclose the demultiplexing of the multiplexed data streams. However, Seshadri et al. discloses a demultiplexer element 910 in Figure 9, which demultiplexes a received data stream that is demodulated and despread by elements 904 and 906, respectively. At the time of the invention, it would have been obvious to someone of ordinary skill in the art given these references to combine the demultiplexing of Seshadri et al. with the despreading and demodulation elements of the Tanno et al. reference. A motivation for doing so would be to allow a signal to be recovered from a transmitter that performs the opposite operations of spreading, multiplexing, and modulation.

Regarding claim **16**, Tanno et al. discloses an encoder (spreader element 14c) that uses CDMA to encode a first data stream (control info element D3) that has a first bit rate in Figure 8. Tanno et al. also discloses in Figure 8 a multiplexer (multiplexer element 17) which multiplexes the resulting spread data stream with a second data stream (paging info element D1) that has a higher bit rate than the first data stream. Tanno et al. does not disclose a modulator coupled to a multiplexer that frequency modulates the multiplexed data stream. However, Seshadri et al. discloses a multiplexer element 318 that outputs a multiplexed data stream to a modulator element 324 in Figure 3. At the time of the invention, it would have been obvious for someone of ordinary skill in the art given these references to add modulation as taught in Seshadri et al. to the multiplexed system of the Tanno et al. reference. A motivation for doing so would be to enable the multiplexed data stream to be transmitted over the air using an allowed frequency carrier.

Regarding claim **19**, Tanno et al. discloses a demodulator for frequency demodulating a modulated data stream with the demodulator element 23 of Figure 9. Tanno et al. also discloses a decoder that uses CDMA for decoding the spread data stream with despreader element 27 of Figure 9. Tanno et al. does not disclose a demultiplexer that is coupled to the demodulator, which demultiplexes the multiplexed data stream(s). However, Seshadri et al. discloses a demultiplexer element 910 in Figure 9 that demultiplexes a received data stream that is demodulated and despread. At the time of the invention, it would have been obvious to someone of ordinary skill in the art given these references to combine the demultiplexing of Seshadri et al. with the

despreading and demodulation elements of the Tanno et al. reference. A motivation for doing so would be to allow a signal to be recovered from a transmitter that performs the opposite operations of spreading, multiplexing, and modulation.

Allowable Subject Matter

5. Claims **2-4, 7-9, 11-15, 17, 18, 20, and 21** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rakib et al. (U.S. 6,154,456), Schilling (U.S. 5,469,468), Rostoker et al. (U.S. 5,729,535), Li (U.S. 6,571,369), Herring (US 2001/0036174), Rasanen (U.S. 6,674,741), Sato (U.S. 6,130,884), Persson et al. (US 2003/0013447), and Uchida et al. (U.S. 5,805,581) are all references that contain material pertinent to this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Moore, Jr. whose telephone number is (703) 305-8703. The examiner can normally be reached during the hours of 8:30am - 5:00pm (Monday-Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (703) 308-5463. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Seema S. Rao
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